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EXAMINER

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

MAILED

MAY 11 2007

GROUP 3600

Application Number: 10/807,030
Filing Date: March 23, 2004
Appellant(s): LINDENSCHMIDT ET AL.

William C. Gehris
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed January 29, 2007 appealing from the Office action mailed August 1, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,827,149	SPONABLE	10-1998
6,471,027	GIERER ET AL.	10-2002
1,119,957	KNAPPE ET AL.	7-1968

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 6, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gierer '027 in view of Sponable '149. With regard to claims 1 and 14, Gierer teaches a device for controlling an electrically-operated holding magnet 5 of a parking lock 15 of a motor vehicle transmission 20, the holding magnet being supplied with power via a transmission control 19 resettable to a basic setting and for holding the parking lock in a disengaged state, wherein power is supplied to the magnet to hold the parking lock in the disengaged state. Gierer lacks the teaching of a specific method of operating the device. Sponable teaches a device for controlling an electrically-operated actuator 10 of a parking lock 94, wherein power 104 is supplied via a transmission control 18 resettable to a basic setting (i.e. Neutral), the device comprising an apparatus for bridging (shifting into another gear) a reset operation of the transmission control (Fig. 1), the apparatus keeping the parking lock disengaged during the reset operation (Col. 5; keeps the parking lock off unless in Park). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Gierer to employ the parking lock operation method of Sponable, in order to simplify the integration of various safety features and prevent the

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shifting into or out of park lock during incorrect times (Col. 1). With regard to claims 2 and 15, Gierer and *Sponable* teaches the device wherein the apparatus interrupts the power supply of the holding magnet as a function of a condition indicating that the parking lock is to be engaged (Col. 2; Col. 5). With regard to claim 6, Gierer and *Sponable* teach the device wherein the apparatus has a condition that indicates that the parking lock is to be engaged, thus interrupting an energy supply circuit of the holding magnet, but lacks the specific teaching of a relay or transistor being activated to relay said park signal (via 20). It is inherent that the device has a relay or a transistor energized as a function of the parking lock being needed to be engaged (via control of 20), since a positive signal for said control is known in the art. With regard to claim 16, Gierer and *Sponable* teach the method wherein the condition represents an intent of a driver for the parking lock to be engaged (*pressing P*), the condition being met by an action triggered by the driver.

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gierer in view of *Sponable* as applied to claim 1 above, and further in view of Knappe '957. With regard to claim 4, Gierer and *Sponable* teach the device wherein the apparatus has an electric circuit, wherein the circuit maintains a power supply of the holding magnet during the reset operation, but lacks the teaching of an energy storer. Knappe teaches an electric circuit for an actuator including an electric energy storer C. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Gierer in view of *Sponable* to employ an energy storer in further view of Knappe in order to accelerate the disengagement of the parking lock (page 1). With regard to claim 5, Knapp teaches the device wherein the electric energy storer is a capacitor C.

(10) Response to Argument

a) Applicant states that Gierer describes “a locking system (13) [that] is actuated by a magnet (5) through which a current flows. See e.g. Abstract.”

Applicant quotes this portion of the Abstract, but omits the first part of the quote and the following sentence, which states:

that the parking brake “is additionally **held in the released state by a locking system (13) is actuated by a magnet (5)** through which a current flows. **The locking system (13) is kept activated and thus the parking brake released until the magnet (5) in the position in which the locking system (13) is actuated, has a power consumption lower than necessary for loading the locking system (13).**”

The magnet is turned on to hold the parking brake in the released state (not the locked state). This will be further discussed in detail in response to applicant’s specific arguments.

b) Applicant states that Sponable teaches two reversible motors are used to engage and disengage the parking lock.

Applicant is showing the difference between the parking lock mechanism of Sponable and the parking lock mechanism of Gierer. It can be shown, however, that the difference in the actuating mechanisms is irrelevant with regard to the claimed subject matter. Gierer provides the only teaching of a parking lock mechanism that is being used in the rejection. The teaching of parking lock mechanism (itself) of Sponable is not being incorporated within the combination. This will be further discussed in detail in response to applicant’s specific arguments.

With regard to claim 1:

Gierer teaches the following portion of claim 1 (in bold italics):

1. A device for controlling an electrically-operated holding magnet 5 of a parking lock 15 of a motor vehicle transmission 20, the holding magnet being supplied with power via a transmission control 19 (see Col. 2, lines 65-67)* resettable to a basic setting and for holding the parking lock in a disengaged state (see Col. 2, lines 40-62), the device comprising: an apparatus (see Col. 1, lines 5-6)* for bridging a reset operation of the transmission control, the apparatus maintaining a power supply of the holding magnet during the reset operation.

c) Applicant argues that Gierer does not teach or show a “holding magnet being supplied with power via a transmission control resettable to a basic setting and for holding the parking lock in a disengaged state.”

With regard to the control of the holding magnet, in Col. 2, lines 40-62, once the parking brake is deactivated, and even if hydraulic pressure drops in the piston chamber, the parking brake cannot be activated, since the piston will remain in its unlocked position until the magnet is switched off. Therefore, the magnet holds the parking lock in a disengaged state, as claimed in Claim 1.

With regard to the transmission control, which controls said parking brake, in Col. 2, lines 65-67, it is stated that the parking brake for the automatic transmission is activated via an actuation signal triggered via a control device 19. In order to trigger the magnet, power needs to be supplied to the magnet, and part 19 is disclosed as being the control device to trigger the magnet. The parking brake is part of the automatic transmission, and therefore the control device of the parking brake is considered a “transmission control.” Part 19, at least the controls thereof, are later combined with the transmission controls of Sponable, which clearly control the “entire” automatic transmission (including the parking brake).

* Gierer teaches a transmission control for an automatic transmission, but lacks the specific teaching with regard to the controls. One of ordinary skill in the art at the time of the invention would recognize that most transmission controls are resettable to a basic setting. Since the claimed limitations are broad, for the purposes of this limitation, the basic setting is considered to be Neutral. A transmission control can set and reset the transmission to the Neutral setting. However, since Gierer is mute with regard to the specific controls between the parking brake and the rest of the automatic transmission, the teachings of Sponable are incorporated into the rejection via the combination (as discussed below).

d) Applicant argues that Gierer does not teach or show “an apparatus for bridging a reset operation of the transmission control, the apparatus maintaining a power supply of the holding magnet during the reset operation.”

* Gierer teaches of an apparatus (the automatic transmission and the respective controls). One of ordinary skill in the art at the time of the invention would recognize that most transmissions and transmission controls could bridge a reset operation. Since the claimed limitations are broad, for the purposes of this limitation, the bridging is considered to be shifting into another gear, which is “bridging” the control of shifting into Neutral (the resettable basic setting). However, since Gierer is mute with regard to the specific controls between the parking brake and the rest of the automatic transmission, the teachings of Sponable are incorporated into the rejection via the combination (as discussed below).

Sponable teaches the following portion of claim 1 (in bold italics):

1. A device for controlling an electrically-operated holding magnet of a parking lock 94 of a motor vehicle transmission, the holding magnet being supplied with power via a transmission control 18 resettable to a basic setting (Neutral) and for holding the parking lock in a disengaged state (Col. 5, lines 60-62), the device comprising: an apparatus (Fig. 1) for bridging (shifting into another gear) a reset operation (shifting into Neutral) of the transmission control, the apparatus maintaining a power supply of the holding magnet during the reset operation.

e) Applicant argues that Sponable does not teach or show a “holding magnet being supplied with power via a transmission control resettable to a basic setting and for holding the parking lock in a disengaged state.”

Sponable does not teach of a holding magnet being supplied with power to hold the parking lock in a disengaged state. However, Gierer (the parking brake mechanism that is being used in the rejection) provides the teaching of a holding magnet being supplied with power in order hold the magnet in the disengaged state (see Examiner’s response under Argument “c”). Sponable teaches a transmission control that is resettable to a basic setting, and for the purpose of this broadly claimed limitation, the basic setting is considered to be Neutral. An automatic transmission control can set and reset the transmission to the Neutral setting.

Since Sponable teaches a transmission control 18 that is resettable to a basic setting (Neutral), and Gierer teaches of a holding magnet that is supplied with power in order to hold the magnet in the disengaged state, the combination of the two teachings results in the teaching of a “holding magnet being supplied with power via a transmission control (Gierer) resettable to a basic setting (Sponable) and for holding the parking lock in a disengaged state (Gierer).”

f) Applicant argues that Sponable does not teach or show “an apparatus for bridging a reset operation of the transmission control, the apparatus maintaining a power supply of the holding magnet during the reset operation.”

Sponable teaches an apparatus (the automatic transmission and the respective controls) for bridging a reset operation. For the purpose of this broadly claimed limitation, the reset operation is being considered a shift into Neutral, and the “bridging” is being considered a shift into another gear (i.e. Drive or a gear in Drive). Sponable also teaches the transmission control, wherein the parking lock is maintained in the released condition (Col. 5, lines 60-62) during a gear range that is other than Park (i.e. Neutral, or the designated reset operation).

Since Sponable teaches an apparatus (the automatic transmission and the respective controls) for bridging (shifting into another gear) a reset operation (shifting into Neutral) of the transmission control, and maintaining the parking lock in the released condition during the reset operation (i.e. Neutral); and Gierer teaches of a parking lock with a holding magnet that is powered to maintain a released condition, the combination of the two teachings results in a teaching of “an apparatus for bridging a reset operation of the transmission control, the apparatus maintaining a power supply of the holding magnet during the reset operation.”

g) Applicant argues that Gierer does not teach or disclose a control device a transmission control, but merely a device 19 that is controlling the parking gear 16 for the transmission.

Applicant broadly claims a “transmission control.” As stated earlier, in Col. 2, lines 65-67, it is stated that the parking brake for the automatic transmission is activated via an actuation signal triggered via a transmission control (device) 19. Part 19 is disclosed as being the control device to trigger the magnet. The magnet itself is the device that operates the parking lock, and

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part 19 controls the magnet. Since the parking brake is part of the automatic transmission, the control device of the parking brake is considered a transmission control. This debate is moot, however, since Sponable teaches a control device 18 controlling the automatic transmission control, which is resettable to a basic setting (Neutral). The specific teaching of the control device 18 controlling the transmission of Sponable is incorporated in the rejection. The controls of part 19 (triggering the magnet by supplying power) would be combined with the transmission control (18 of Sponable) that is resettable to a basic setting.

h) Applicant argues that the park lock actuator of Sponable is controlled in a different manner.

Applicant's description of the parking lock actuator of Sponable is accurate. It can be shown, however, that the details of the parking lock actuator or the respective electronic controls to mechanically actuate the parking lock of Sponable (i.e. moving the motor to the unlocked position and then cutting off power while maintained in the unlocked position) are not being incorporated into the combination. Gierer teaches a parking lock actuator that held in the disengaged position by providing power to the magnet. Sponable teaches a transmission control wherein the parking lock is maintained in the unlocked position when the transmission is not in Park. The controls of Sponable are being used in the combination, not the actual parking lock mechanism and the respective means to control said parking lock mechanism. Therefore, the combination would result in a parking lock mechanism, where power to the magnet would be sustained (as taught by Gierer) when the transmission was not in Park, in order to maintain the unlocked position (as taught by Sponable).

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i) Applicant argues that the reset operation of a transmission control is not the reset operation as claimed.

Applicant broadly claims “a reset operation” (or a “reset” in claim 14). Applicant has argued that the “reset operation” of Sponable is not the same as disclosed in the specification of the present invention, and nor does it “reset” (“to set again”). Applicant is defining the limitation of “reset operation” (or “reset”) using the description disclosed in the specification. This is too narrow of an interpretation, as applicant has only broadly claimed “a reset operation” (or “reset”). Applicant has not incorporated any of the details of the “reset operation” (or “reset”) from the specification into the claim. This limitation is merely a label.

Also, the operation itself does not necessarily have to be “set again.” If applicant claimed a “closing operation,” this would not limit the operation to something that is “closing” or “ending.” Applicant has not claimed a condition that has been set, moved to another condition, and then set back to the previous condition. These details are not in any of the claims.

The broadly claimed limitation is currently being interpreted as any operation. Sponable teaches a “reset operation,” wherein the transmission control can be set to a basic setting (Neutral). Also, to satisfy applicant’s argument with regard to the literal definition of the word “reset,” this setting (Neutral) can be “set again,” as the transmission can be shifted in and out of Neutral several times.

Given the combination of Gierer and Sponable, during a reset operation (Neutral), the parking lock is maintained in the unlocked state (Sponable), and therefor, power supply of the holding magnet is maintained (Gierer).

j) Applicant argues that Sponable does not disclose any “bridging,” and certainly not of any reset operation.

Applicant broadly claims an apparatus for “bridging a reset operation.” To bridge an operation would be to bypass it, or perform an operation other than the operation that is being bridged. Sponable teaches an apparatus (the automatic transmission and its controls) that bridges (shifts into another gear (range)) a reset operation (shifting into Neutral). If the transmission is controlled to shift to another gear, instead of Neutral, then it is “bridging the reset operation.”

k) Applicant argues that one of ordinary skill would not have modified Gierer to provide “an apparatus for bridging a reset operation of the transmission control, the apparatus maintaining a power supply of the holding magnet during the reset operation” as the control devices and parking locks are totally different.

How Sponable physically controls its own parking brake is not relevant to the combination. It is the program of Sponable (relative controls between the transmission and the parking brake) that is being incorporated into the combination. Again, Gierer teaches a parking lock that is held in the unlocked position by maintaining a power supply to the holding magnet. Sponable teaches of the specific details of an apparatus (the transmission and the controls) that can bridge (shift into another gear) a reset operation (shift into Neutral), and also hold a parking brake in the unlocked position during a reset operation (shift into Neutral). The combination would result in an apparatus maintaining a power supply to the holding magnet during a reset operation.

Applicant states that no bridging is required or desired by the worm and motor gear system of Sponable. The bridging limitation, as claimed, is not associated with the controls parking lock mechanism during the reset operation. There is no direct link between the bridging and the parking lock, other than the fact that the apparatus performs both functions (which it does in Sponable). Sponable teaches the apparatus, which bridges the reset operation. The apparatus (transmission and controls) also keeps the parking brake unlocked during the reset operation. Therefore, Sponable teaches both these limitations (as discussed earlier).

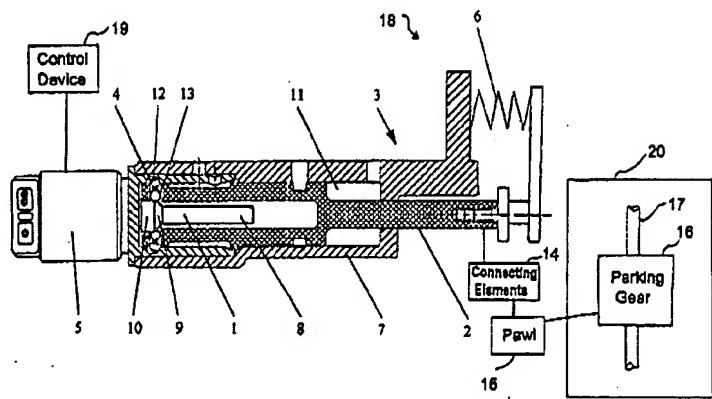
With regard to the different parking locks and control devices, again, only the parking lock **mechanism** of Gierer (the lock itself, and how it is mechanically controlled by the magnet) and the parking lock **controls** of Sponable (the program that controls the parking lock) are being used in the rejection. Sponable teaches the apparatus (transmission and controls, i.e. 12,18 and the controlling leads) that has a reset operation, and controls the parking brake (via leads) to remain unlocked during the reset operation. Also, the apparatus can bridge (shift into another gear) the reset operation. This “bridging” is both required and desired by the apparatus of Sponable.

1) Applicant argues that many parts would have to be modified in order to maintain the functionality of the magnet of Gierer, after modifying it with the controls of Sponable.

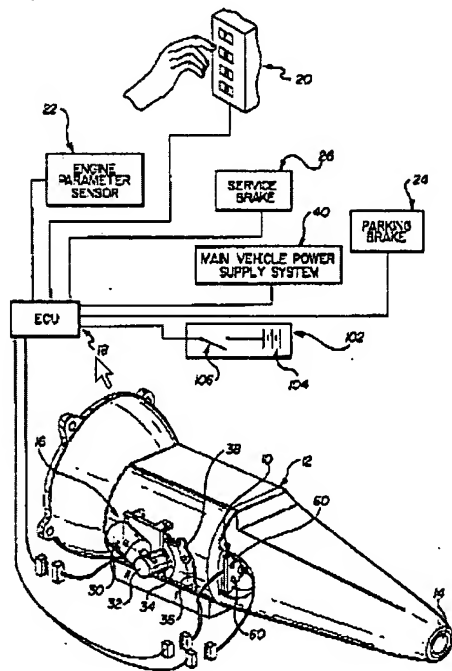
Gierer teaches an automatic transmission 20, and the parking is part of the automatic transmission (Col. 1). Gierer only chooses to go into the details of the parking brake itself, and is mute with regard to the controls of the transmission and any relative controls with regard to the parking brake. Given the base parking brake 18 of Gierer and how it is operated (unmodified), the only teachings of Sponable that are being incorporated into the rejected claims

are the apparatus (transmission and controls) and how it relatively controls the transmission control and the parking brake.

For a visual explanation, given:

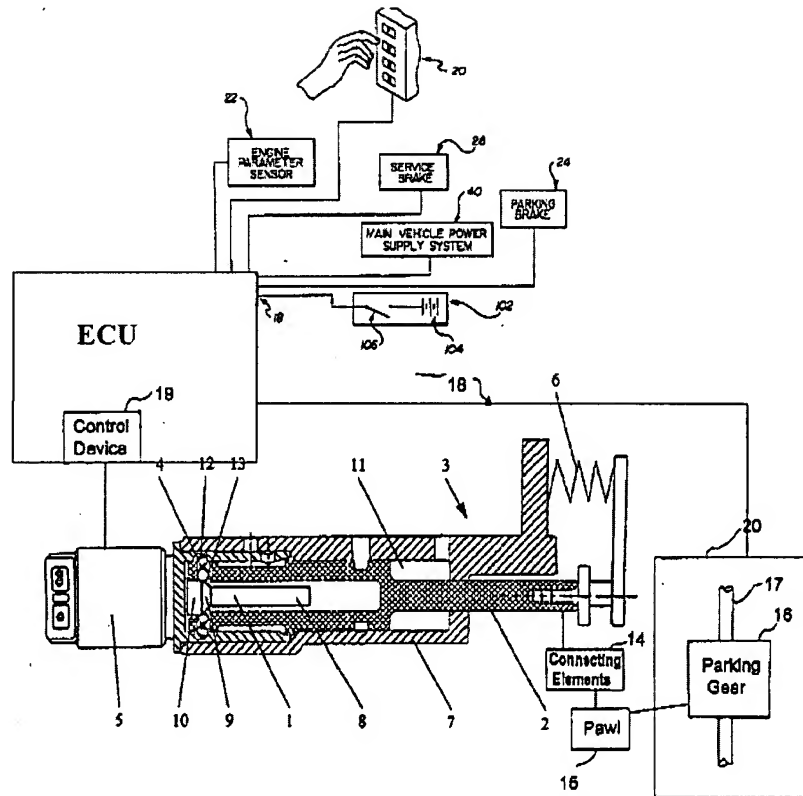


Gierer
and



Sponable

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Combination of Gierer in view of Sponable.

Gierer provides a holding magnet that is powered to maintain an unlocked state of a parking brake. Sponable teaches of an apparatus (transmission and controls) that will maintain the unlocked state of a parking brake during a reset operation (when the transmission is in Neutral). Also, the apparatus can bridge (shift into another gear) said reset operation. The combination would require little mechanical modifications, and essentially, only the controls of Sponable are being incorporated (The program being located in the ECU, which has leads that control both the transmission and parking brake). Since Sponable teaches of maintaining the unlocked condition during the reset operation (i.e. shift into Neutral), and Gierer teaches of maintaining a power supply during the unlocked condition, the result of the combination would be to maintain the power supply to the holding magnet of Gierer, during the reset operation.

Admittedly, Sponable is controlling the parking brake in a different manner than the present invention (with regard to the power reset, etc.). It has be shown, however, that Gierer in view of Sponable teach the limitations of the present invention as currently claimed. Applicant has placed narrow definitions on the broadly claimed limitations. Each limitation has been carefully addressed with regard to how they are taught by the cited art and how they are being interpreted.

With regard to Claim 14:

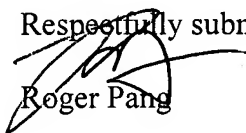
Claim 14, is broader than claim 1(as it does not comprise of the "bridging" limitation). All of the arguments are repetitions of the arguments for the common limitations of claim 1. These arguments have already been addressed (see a-1). Therefor, further discussion of these arguments is deemed unnecessary.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


Roger Pang

May 9, 2007

Conferees:

Meredith Petravick 

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